Researching Radiation as a Useful Tool

In this activity, we suggest that the students to gather information about a tool, technique, or product that contains or uses radiation or radioactive materials and give an oral presentation on their findings. If possible, have the students include the topics discussed in Module 1, Module 2, and Module 3.

Objectives:

- Present in detail an application of radiation or radioactive isotopes.

Discussion Questions:

- How are X-rays useful?
- How is radiation used with cancer patients?
- How can gamma rays be used to preserve food?
- Do cell phones give off radiation? If so, how much, and is it harmful?
- How can radioactive materials be used to determine the age of a rock?
- What is the difference between SPECT, CT Scan, and Radiation Therapy?

Research Question:

How has radiation and radioactive materials enhanced our understanding of biological structures and their function?

Methods:

Have the students research a nuclear medicine technique or radiation/radioisotope application they are interested in. Require the students to develop a poster presentation or electronic presentation for the class that incorporates the concepts of Modules 1, 2, 3, and 4.